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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,376	12/03/2003	Shyunichi Koide	.TS 8067 USA	7147

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EXAMINER	
MCAVOY, ELLEN M	
ART UNIT	**PAPER NUMBER**
1764	

MAIL DATE	DELIVERY MODE
08/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/726,376	KOIDE ET AL.	
	Examiner	Art Unit	
	Ellen M. McAvoy	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-9 and 13-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Halik et al (3,384,574).

Applicants' arguments filed 29 May 2007 have been fully considered but they are not persuasive. As previously set forth, Halik et al ["Halik"] disclose jet fuel compositions prepared from straight run kerosene fractions which contain paraffins in an amount of from about 30 to about 75 weight percent, naphthenes (cyclic paraffins) in an amount of from about 20 to about 50 weight percent and aromatics in an amount of from about 5 to about 30 weight percent. See the table in column 2, top. The tables in columns 11 and 12 set forth catalytically treated charge stocks from which aromatics were removed by silica gel absorption. The examiner maintains the position that the compositions set forth in column 12, lines 9-21, containing C_{10}-C_{18} paraffins, 9.4 mole percent naphthenes which are cycloparaffins, and essentially no aromatics clearly

anticipate the kerosene compositions of claims 1, 3, 7, 8 and 9. The remaining dependent claims differ by limiting the carbon number of the paraffin component, increasing the ratio of paraffins to cycloparaffins and by specifying a smoke point of the composition. However, the examiner maintains the position that such modifications would have been obvious to one skilled in the art if so desired.

Applicants argue that the Halik reference relates to a catalytic process for making jet fuel and that a person skilled in the art would not look to a jet fuel to solve applicants' problem of an unpleasant odor in a heating fuel. This is not deemed to be persuasive because independent claim 1 is drawn towards a composition and the Halik reference sets forth a composition which anticipates the claim.

Claim Rejections - 35 USC § 103

Claims 1-3, 5-9 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirk, Jr. (3,985,638) in combination with Halik et al (3,384,574) .

Applicants' arguments filed 29 May 2007 have been fully considered but they are not persuasive. As previously set forth, Kirk, Jr. discloses jet fuels having high smoke points of at least 35 and low freeze points of less than –20°F obtained by blending a dearomatized straight run kerosene with a C_{10}-C_{12} paraffinic component such as n-decane, n-dodecane, hydrogenated propylene tetramer and hydrogenated butylene trimer. See column 1, lines 27-55. Although Kirk, Jr. does not teach that at least 99 wt.% of the kerosene composition contain n-paraffins and/or iso-paraffins and at least one cyclo-paraffins, the prior art compositions appear to be

entirely comprised of saturated hydrocarbons or paraffins. Kirk, Jr. teaches that paraffinic straight run kerosene containing 12 to 16 weight percent aromatics can be treated by solvent extraction or by contact with an adsorbent to remove the aromatics. Halik et al ["Halik"] is added to teach that straight run kerosene fractions typically contain a mixture of paraffins, naphthenes (cyclic paraffins) and aromatics in an amount of from 8.2 to 17.0 wt.%. See the table in column 2, top. Thus, the examiner maintains the position that the high quality blended jet fuel composition of Kirk, Jr., in view of Halik, meets the compositions of the claims.

Claim Rejections - 35 USC § 103

Claims 1-3, 5-9 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schreiner et al (5,713,964).

Applicants' arguments filed 29 May 2007 have been fully considered but they are not persuasive. As previously set forth, Schreiner et al ["Schreiner"] disclose a low smoke firefighter training liquid hydrocarbon composition containing (a) n-paraffins (n-alkanes) in an amount of from about 95-100 wt.%, cycloparaffins and iso-paraffins, and (b) a volatile iron compound dissolved or dispersed in the liquid hydrocarbon composition in an amount of from about 0.1 to 10 wt.%. See column 2, lines 20-41 and column 4, lines 1-31. Applicants' open-ended claim language "comprising" allows for the addition of other additives to the composition such as the iron component of Schreiner. The examiner maintains the position that the liquid hydrocarbon composition of Schreiner appears to meet the limitations of the kerosene composition of the claims. Although a weight ratio of n-paraffins and/or iso-paraffins to the

cyclo-paraffins is not set forth, the examiner is of the position that the claimed composition may be the same since it comprises the same components. Although a smoke point is not set forth, the examiner is of the position that the smoke point of the prior art composition may be the same as the claimed composition since since the compositions comprise the same components.

Applicants argue that the Schreiner reference is directed to firefighter training material and does not teach applicants invention of a kerosene oil (heating oil) comprising at least 99 wt.% of (a) at least one n-paraffins and/or iso-paraffins, said n-paraffins and/or iso-paraffins having from 7 to 18 carbon atoms and (b) at least one cyclo-paraffins and/or alkyl derivatives thereof having from 9 to 18 carbon atoms, wherein the ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75. This is not deemed to be persuasive because Schreiner sets forth suitable compositions in the Table in column 4, top, that contains 75-100 wt.% of n-alkanes, less than 5.0 wt.% aromatics and 0 to 25 wt.% of other constituents. Schreiner teaches that cycloparaffins are acceptable as the "other constituents". The examiner maintains the position that the compositions disclosed in Schreiner meet the limitations of the above rejected claims.

Claim Rejections - 35 USC § 103

Claims 1-3 and 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berlowitz et al (5,689,031) in combination with either Halik et al (3,384,574), Kirk, Jr. (3,985,638), or Schreiner et al (5,713,964).

Applicants' arguments filed 29 May 2007 have been fully considered but they are not persuasive. As previously set forth, Berlowitz et al ["Berlowitz"] disclose a clean distillate useful as a diesel fuel or diesel blending stock produced from Fischer-Tropsch wax. The distillate has the properties of at least 95 weight % paraffins, preferably at least 99 weight % paraffins, an isoparaffin to n-paraffin ratio of about 0.3 to 3.0, and essentially nil unsaturates (olefins and aromatics), sulfur and nitrogen. Berlowitz teaches that the product contains essentially nil cyclic paraffins which differs from the claimed invention which comprises at least one cyclo-paraffin and/or alkyl derivative thereof. However, as evidenced by Halik et al, Kirk, Jr. and Schreiner et al set forth above, cyclic paraffins are well-known components in such paraffinic compositions. Thus, having the prior art references before the inventors at the time the invention was made, it would have been obvious to the skilled artisan to have combined the Fischer-Tropsch derived product of Berlowitz with other non-synthetic paraffinic compositions such as those set forth in Halik, Kirk, Jr, and Schreiner. It has been held that it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, here, as paraffinic compositions, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art. *In re Kerkhoven,* 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Applicants argue that the examiner has the burden to establish a *prima facie* case of unpatentability of the pending claims on any grounds, including abviousness. And that if examination at the initial stage does not produce a *prima facie* case of unpatentability, then

without more, the applicant is entitled to a grant of the patent. This is not deemed to be persuasive because, as set forth above, it would have been obvious to the skilled chemist to have combined the Fischer-Tropsch derived product of Berlowitz with other non-synthetic paraffinic compositions such as those set forth in Halik, Kirk, Jr, and Schreiner. It has been held that it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, here, as paraffinic compositions, in order to form a third composition to be used for the very same purpose.

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ellen M McAvoy
Primary Examiner
Art Unit 1764

EMcAvoy
August 7, 2007